

REMARKS/ARGUMENTS

In the Office Action, the Examiner rejected claims 1-33 and 35-57 and objected to claim 34. By the present Response, Applicants have canceled claims 4-7, 12, 32-34, and 42, amended claims 1, 3, 8-11, 13, 14, 16, 17, 20, 22, 25, 28-31, 35, 37, 41, 43, 44, 54, and 57, and added new claims 58-65. These amendments and new claims do not add any new matter. Upon entry of these amendments, claims 1-3, 8-11, 13-31, 35-41, and 43-65 will be pending in the present application and are believed to be in condition for allowance. In view of the foregoing amendments and the following remarks, Applicants respectfully request reconsideration and allowance of all pending claims.

Objection to the Specification

In the Office Action, the Examiner objected to the abstract “because of the use of the phrase ‘the present invention discloses’ in line 7” and “because the word ‘stimulation’ in lines 6 and 7 should be changed to --stimulating--.” Office Action, page 2. Applicants have amended the abstract in accordance with the Examiner’s suggestions and request withdrawal of the objection to the specification.

Claim Objections

In the Office Action, the Examiner objected to claims 3, 4, 14, 24, 27, 29, 30, 44, 45, 53, and 56 “because of the following informalities: These claims are indefinite because they are not constructed as proper Markush claims. These claims must be written as Markush claims.” Office Action, page 3. While Applicants do not concede that claims 4, 14, 24, 29, 30, 44, and 53 were indefinite as originally presented, Applicants have amended these claims in a manner consistent with the Examiner’s suggestions. Further, Applicants submit that claims 27 and 45 as originally presented are not indefinite, but instead properly use alternative expressions. Indeed, as provided by the Manual of Patent Examining Procedure Section 2173.05(h), “alternative expressions using ‘or’ are acceptable, such as ‘wherein R is A, B, C, or D.’” M.P.E.P. § 2173.05. For example, claim 27 recites: “the step of sealing the zone . . . includes the use of a degradable sealant, a fluid, a solid, or a combination thereof.” Claim 45 recites that “the stimulation fluid is

an aqueous-based fluid, a gas, or a foamed fluid.” Because both claims 27 and 45 properly use alternative expressions, Applicants respectfully submit that neither claim is indefinite.

Moreover, the Examiner also objected to claims 12 and 42 “because of the following informalities: The phrase ‘substantially the same chemistry’ is indefinite. Applicant must provide a clear description of how the chemistry of the stimulation fluid is similar to that of the drilling fluid.” Office Action, page 3. By the present response, Applicants have canceled claims 12 and 42. Accordingly, because these claims are no longer pending, Applicants have not addressed the Examiner’s objection with respect to these claims. Moreover, Applicants reserve the right to substantively contest the objections if they are reasserted in a continuing application.

For the foregoing reasons, Applicants respectfully request withdrawal of the Examiner’s objections to claims 3, 4, 14, 24, 27, 29, 30, 44, 45, 53, and 56.

Claim Rejection Under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 1-11, 14, 16-25, 31-33, 35-41, 44-54, and 57 under 35 U.S.C. § 102(b) as being anticipated by Shillander, U.S. Patent No. 3,578,078 (hereafter referred to as “the Shillander reference”). Applicants respectfully traverse this rejection. Anticipation under Section 102 can be found only if a single reference shows exactly what is claimed. *See Titanium Metals Corp. v. Banner*, 227 U.S.P.Q. 773 (Fed. Cir. 1985). For a prior art reference to anticipate under Section 102, every element of the claimed invention must be identically shown in a single reference. *See In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990).

Rejection of Independent Claim 1

In the present application, independent claim 1 has been amended to recite the following step:

[S]timulating a section of the subterranean formation using a stimulation tool interconnected with a drill string used in the drilling operation, *the stimulating comprising jetting a stimulation fluid* through at least one port in the stimulation tool against the section of the subterranean formation *at a pressure sufficient to*

create at least one cavity in the section of the subterranean formation.

Applicants respectfully submit that the Shillander reference clearly does not disclose “*jetting a stimulation fluid* through at least one port in the stimulation tool against the section of the subterranean formation *at a pressure sufficient to create at least one cavity*,” as recited in claim 1. In contrast to the present claims, the Shillander reference merely discloses that a treating fluid may be introduced into a borehole through ports 85 in an apparatus 20. *See* Shillander, col. 7, line 66 to col. 8, line 1. Indeed, the Shillander reference specifically provides:

This invention relates . . . to drilling apparatus . . . with which earth formations being penetrated can be sealed off and the contents tested or treated during the drilling operation. . . . [T]reating involves the introduction of fluids, such as an acid, into the lower end portion of the borehole.

See Shillander, col. 1, lines 3-12. However, nowhere does the Shillander reference disclose or suggest that the treatment of the formation utilizing the disclosed apparatus 20 would involve jetting the treating fluid through the ports 85. Nor does the Shillander reference disclose or suggest that the treatment of the formation would involve jetting the fluid against the formation to create a cavity therein. Rather, the Shillander reference discloses that the apparatus 20 may be used to introduce a fluid, such as an acid, into the lower portion of the borehole. *See* Shillander, col. 1, lines 3-12. Accordingly, Applicants respectfully submit that the Shillander reference does not disclose each and every feature of independent claim 1 and, thus, does not anticipate claim 1.

Rejection of Independent Claim 31

While Applicants do not concede the correctness of the rejection of independent claim 31 as set forth in the Office Action, Applicants have chosen to place claim 31 in condition for allowance. In particular, the Examiner indicated that claim 34 was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Office Action, page 7. Accordingly, independent claim 31 has been amended to include the subject matter originally cited in allowable dependent claim 34. As such, Applicants submit that claim 31 and all claims dependent thereon are in condition for allowance.

Rejection of Independent Claim 57

In the present application, independent claim 57 has been amended to recite the following step:

[S]timulating a section of the subterranean formation using the stimulation tool, the stimulating comprising *jetting a stimulation fluid through at least one fluid jet forming nozzle* in the stimulation tool against the section of the subterranean formation *at a pressure sufficient to create at least one fracture* in the section of the subterranean formation.

Applicants respectfully submit that the Shillander reference clearly does not disclose “*jetting a stimulation fluid through at least one fluid jet forming nozzle* in the stimulation tool against the section of the subterranean formation *at a pressure sufficient to create at least one fracture*,” as recited in claim 57. Indeed, as discussed above with respect to the rejection of claim 1, the Shillander reference is merely directed to the introduction of a fluid, such as an acid, into the lower portion of a borehole for treating the formation. See Shillander, col. 1, lines 3-12. Nowhere does the Shillander reference disclose or suggest the inclusion of fluid jet forming nozzles in the ports 85 of the apparatus 20. As such, the Shillander reference does not disclose jetting the treating fluid through fluid jet forming nozzles in the apparatus 20. Nor does the Shillander reference disclose or suggest that the treatment of the formation would involve jetting the fluid against the formation to create at least one fracture therein. Accordingly, Applicants respectfully submit that the Shillander reference does not disclose each and every feature of independent claim 57 and, thus, does not anticipate claim 57.

For the foregoing reasons, Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 102.

Claim Rejections Under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 12, 13, 15, 42, and 53 under 35 U.S.C. § 103(a) as being unpatentable over the Shillander reference; rejected claims 26, 27, 30, 55, and 56 under 35 U.S.C. § 103(a) as being unpatentable over the Shillander reference in view of

Soliman, U.S. Patent No. 5,111,881 (hereafter referred to as “the Soliman reference”); and rejected claims 26-29, 55, and 56 under 35 U.S.C. § 103(a) as being unpatentable over Guinn, U.S. RE27,459 (hereafter referred to as “the Guinn reference”). Applicants respectfully traverse these rejections.

First, by the present Response, claims 12 and 42 have been canceled. Accordingly, because these claims are no longer pending, Applicants have not addressed the Examiner’s rejections with respect to these claims. Moreover, Applicants reserve the right to substantively contest the rejections if they are reasserted in a continuing application. Regarding the remaining claims rejected under 35 U.S.C. § 103, claims 13, 15, 26, 27, 30, 26-29 are each dependent (directly or indirectly) on claim 1, and claims 53, 55, and 56 are each dependent (directly or indirectly) on claim 31. Thus, each of the claims rejected under 35 U.S.C. § 103 depends from a claim rejected under 35 U.S.C. § 102, based on the Shillander reference. As discussed above, the Shillander reference does not disclose each and every feature recited in independent claims 1 and 31. It should be noted that neither the Soliman reference nor the Guinn reference remedies these deficiencies of the Shillander reference. As such, none of the references taken alone or in combination, can render the recited subject matter obvious. Accordingly, Applicants respectfully request that the Examiner withdraw each of the rejections under 35 U.S.C. § 103.

Remarks Regarding New Claims

As set forth above, Applicants have added new claims 58-65. For the reasons discussed above and other claim features, Applicants believe that these claims are patentable over the cited references and in condition for allowance. Therefore, the Applicants request that the Examiner allow the new claims 58-65.

Payment of Fees and Authorization for Extensions of Time

Applicants do not believe that any fees are due. However, if any fees, including fees for extensions of time and other reasons, are deemed necessary to advance prosecution of the present application, at this or any other time, Applicants hereby authorize the Commissioner to charge such requisite fees to Deposit Account No. 08-0300; Order No. 2003-IP-012882U1. In

accordance with 37 C.F.R. § 1.136, Applicants hereby provide a general authorization to treat this and any future reply requiring an extension of time as incorporating a request thereof.

Conclusion

Applicants respectfully submit that all pending claims are in condition for allowance. However, if the Examiner wishes to resolve any other issues by way of a telephone conference, the Examiner is kindly invited to contact the undersigned attorney at the telephone number indicated below.

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Respectfully submitted,



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